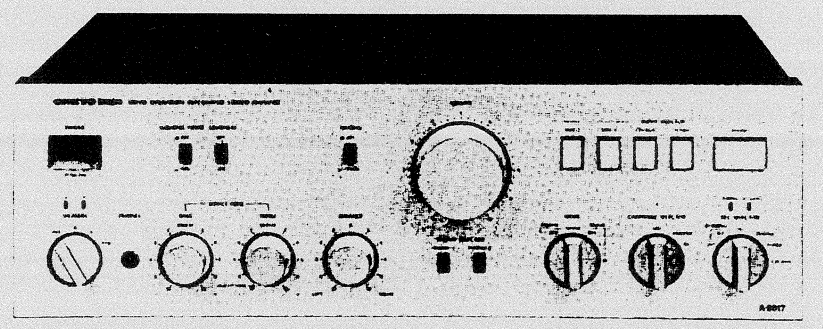
A 8017

SERIAL No. 3147

ONKYO SERVICE MANUAL

SUPER SERVO INTEGRATED STEREO AMPLIFIER MODEL A-8017



UDN, UD	120V AC, 60Hz
UGV, UG	220V AC, 50Hz
UW	120V or 220V AC, 50/60Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

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ONKYO®
AUDIO COMPONENTS

SPECIFICATIONS

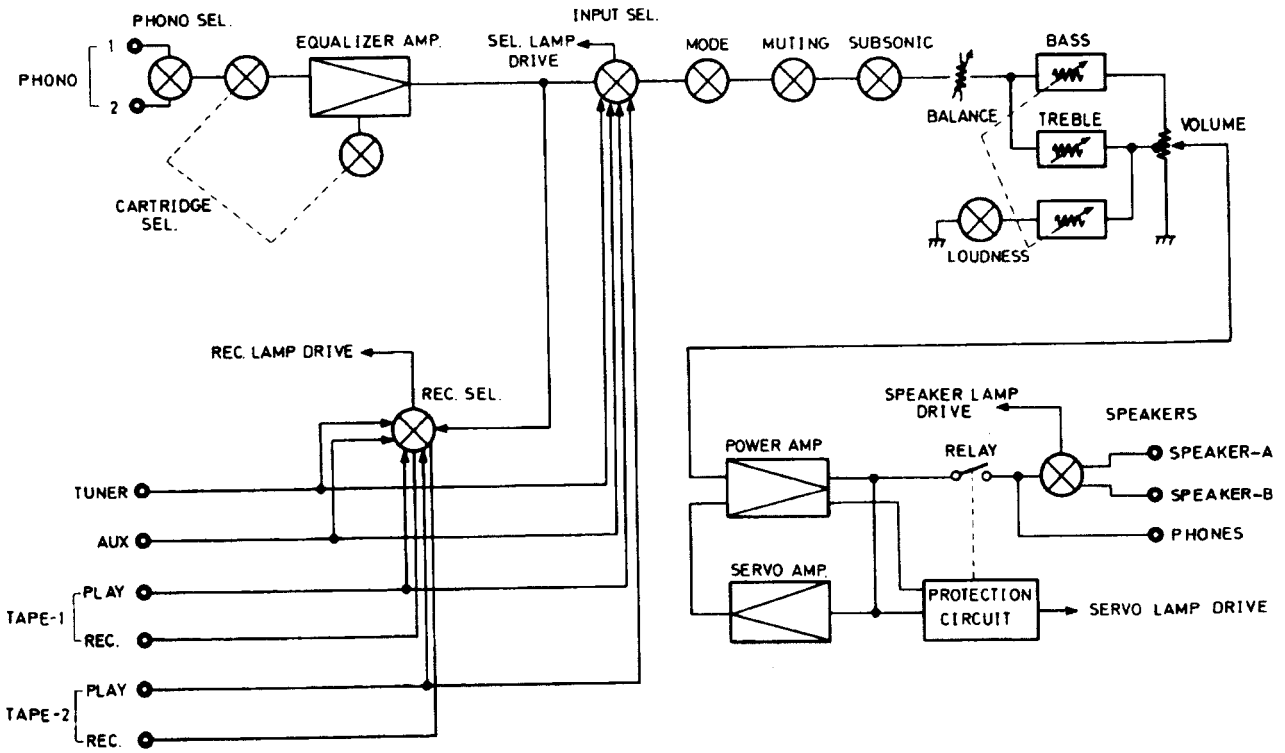
Music Power Output:	2 x 180 watts at 4 ohms, 1kHz (DIN) 2 x 110 watts at 8 ohms, 1kHz (DIN)
Continuous Power Output:	2 x 115 watts at 4 ohms, 1kHz (DIN) 2 x 85 watts at 8 ohms, 1kHz (DIN) 80 watts per channel min. RMS at 8 ohms both channels driven, from 20Hz to 20kHz, with no move than 0.015% THD.
Total Harmonic Distortion:	0.015% at rated power
IM Distortion:	0.005% at rated power
Damping Factor:	50 at 8 ohms
Frequency Response:	2 – 50,000 Hz ±1 dB
RIAA Deviation (MM):	20 – 20,000 Hz ±0.3 dB
Sensitivity and Impedance:	Phono (MM): 2.5mV/50 kohms Phono (MC): 280μV/330 ohms Tuner: 150 mV/50 kohms Tape Play: 150 mV/50 kohms Tape Rec: 150 mV/3.3 kohms (phono)
Phono Overload:	210 mV RMS at 1 kHz, 0.015% THD
Bass Control:	±8 dB at 70 Hz
Treble Control:	±8 dB at 20,000 Hz
Signal to Noise Ratio:	Phono (MM): 80 dB (IHF A-202, 5 mV input, 1 watt output) Phono (MC): 68 dB (IHF A-202, 0.5 mV input, 1 watt output) Tuner & Tape: 84 dB (IHF A-202, 0.5V input, 1 watt output)
Muting:	–20 dB
Loudness Control:	+6 dB at 70 Hz, +5 dB at 20 kHz
Subsonic Filter:	15 Hz (6 dB/Oct.)
High Cut (TREBLE MIN):	6 kHz (6 dB/Oct.)

General

Semiconductors:	IC: 3 TR: 51 Diode: 26
Dimensions:	435(W) x 142(H) x 392(D)mm 17-1/8"x5-9/16"x15-7/16"
Weight:	11.5 kg (25.4 lbs.)

Specifications and features are subject to change without notice.

BLOCK DIAGRAM



PRECAUTIONS

1. Replacing the fuse

For continued protection against risk fire, replace only with same type and same rating fuse.

CIRCUIT NO.	PARTS NO.	DESCRIPTION
F901	252051	6A(ST-6), AC fuse(120V model)
F901	252055	6A-T, AC fuse (120V/220V model)
F902	252076	3.15A-SE-EAK, AC fuse (220V, 120V/220V model)
F701	252070	1A-SE-EAK, AC fuse (220V model)
F1, F2	252079	6.3A-SE-EAK, DC fuse (220V model)

2. Replacing the lamps

This unit uses the lamps listed below.

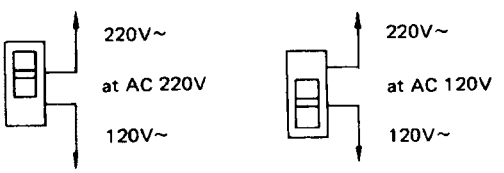
CIRCUIT NO.	PARTS NO.	DESCRIPTION
PL001, PL002	210153	PL14V, 0.06AW-1.0, Speaker switch indicator
PL301, PL302	210155	PL14V, 0.06AW-1.0, Rec. selector indicator
PL303	210150	PL14V, 0.08AW-1.0, Input selector indicator, Phono
PL304, PL305	210146	PL14V, 0.06AW-1.0, Input selector indicator, DAD/AUX
PL306, PL307	210147	PL14V, 0.06AW-1.0, Input selector indicator, TAPE
PL701	210148	PL14V, 0.06AW-1.5, Power indicator
PL702	210151	PL14V, 0.08AW-1.5, Servo indicator

3. Insulation resistance mesurement

Connect the insulating-resistance tester between the plug of power supply cable and the terminal GND specifications; D model, G/W model

4. Voltage selector (rear panel)

Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before turning the power switch on. Voltage is changed by sliding the groove in the switch with a screwdriver or similar instrument to the up or down position. Confirm that the switch has been moved all the way to the up or down before turning the power switch on. If there is no voltage selector switch on the unit you have purchased, it can only be used in areas where the power supply voltage is the same as that of the unit.



MAIN AMPLIFIER ADJUSTMENT

MAIN AMPLIFIER ADJUSTMENT

Set the all control knobs to standard position

Standard knob position

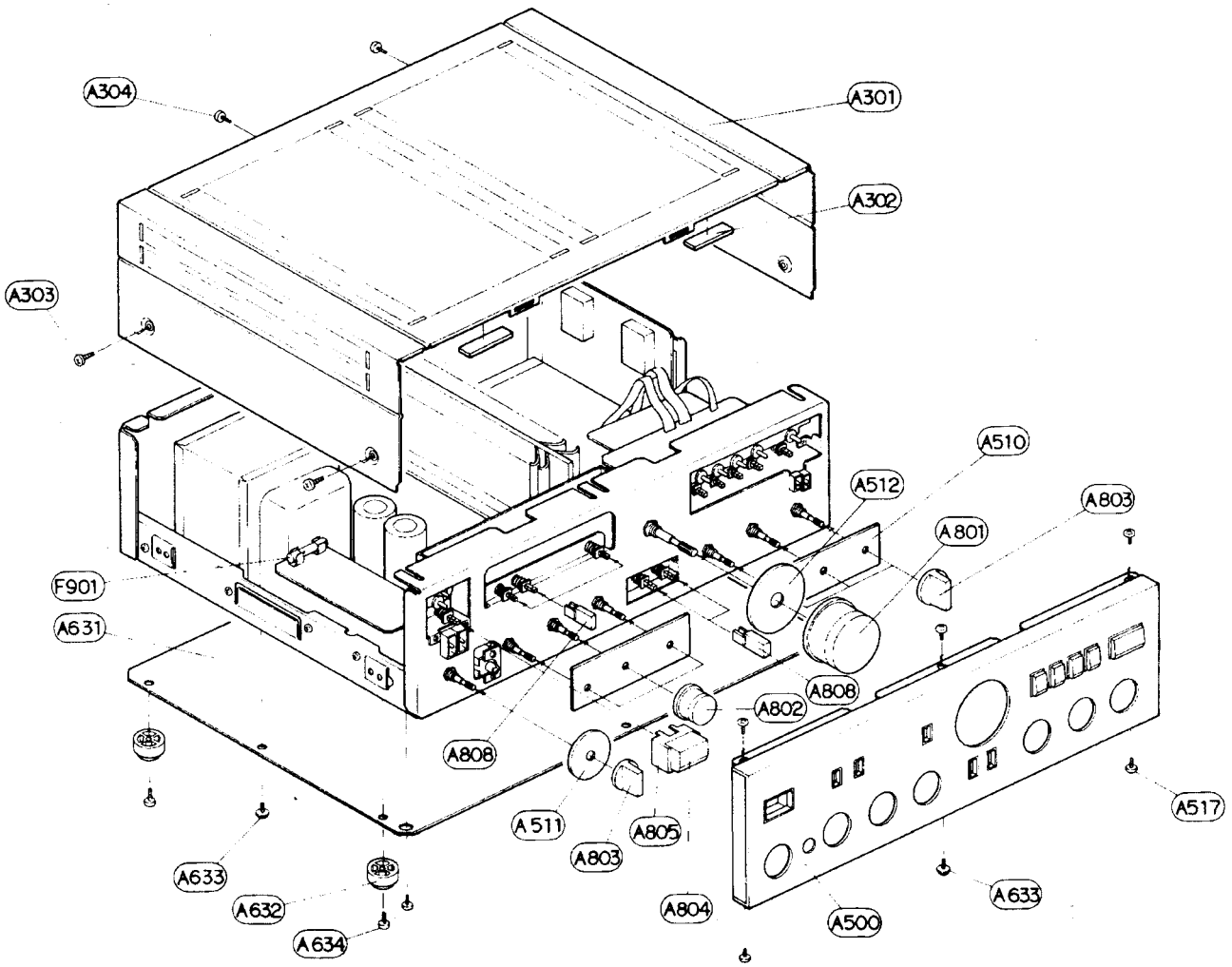
INPUT SELECTOR	TUNER
CARTRIDGE SELECTOR	MM
PHONO SELECTOR	PHONO
REC SELECTOR	OFF
MODE	NORM
MUTING	OFF
SUBSONIC FILTER	OFF
BALANCE	Center
VOLUME	Minimum
LOUDNESS	OFF
BASS	DEFEAT
TREBLE	DEFEAT
SPEAKERS	A

IDLING CURRENT ADJUSTMENT

1. Connect the DC voltmeter between I_{ID} and V_{CT} terminals.
2. Adjust the voltage to 12V±5mV with semi-fixed resistor of R538 and R638.

NOTES: Adjust after switching on for 5 minutes.
VOLUME ..... Minimum
LOAD ..... Open

EXPLODED VIEW

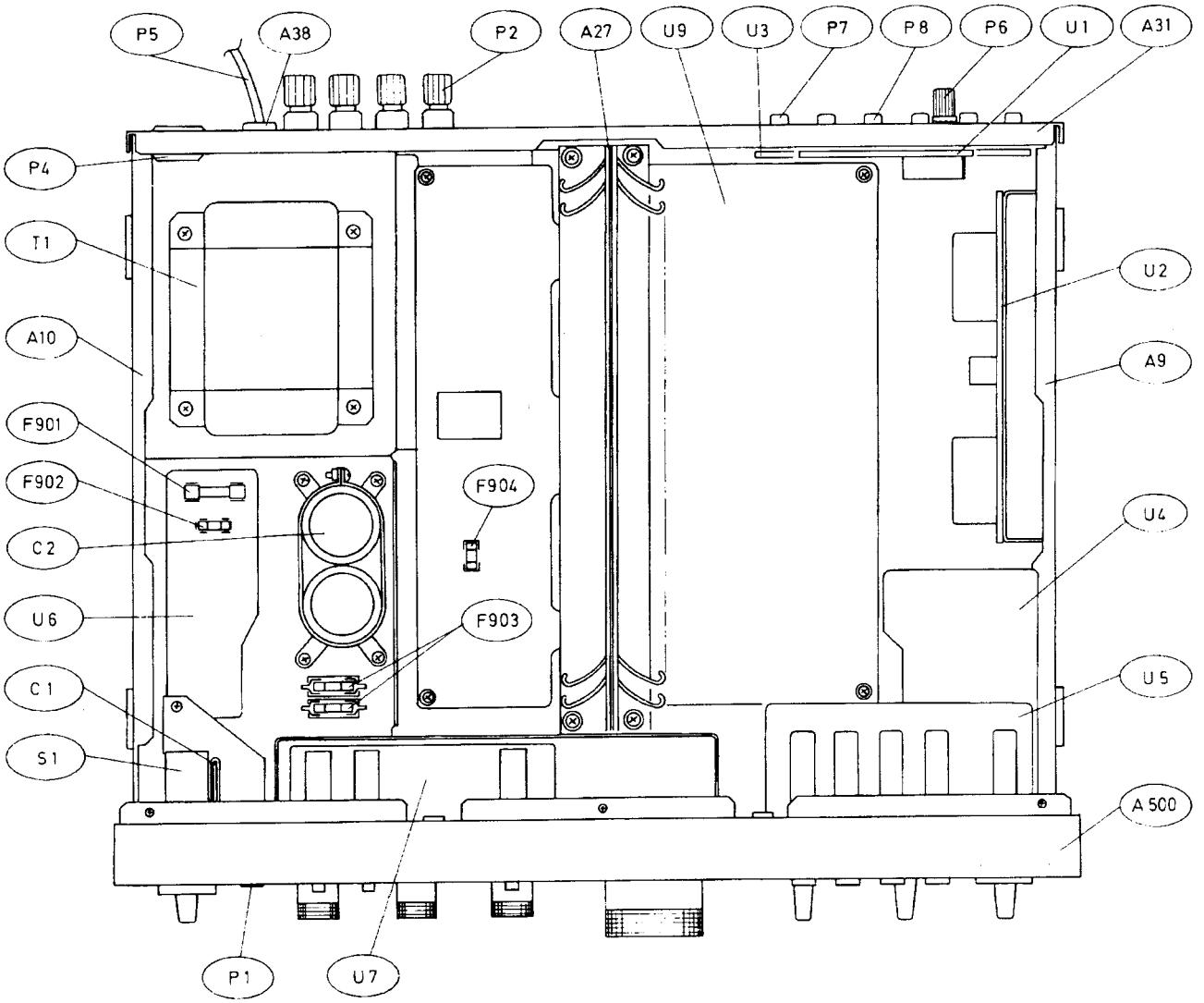


PARTS LIST

REF. NO.	PARTS NO.	DESCRIPTION
A9	27115132A	Side bracket, Right
A10	27115089C	Side bracket, Left
A27	27160111	Heatsink
A31	27120483A	Back panel (D)
	27120484	Back panel (G)
	27120485	Back panel (W)
A38	270280	SR-4K-4, Strainrelief
A301	28184187	Top cover
	28184185	Top cover Ⓑ
A302	28140020	Cushion, Top cover
A303	838440089	4TTB+8C(BC), Tapping screw
A304	834430068	3TTS+6B(BC), Tapping screw
A500	12298121	Front panel ass'y
	12284121	Front panel ass'y Ⓑ
A510	28140205	Cushion, Tone
A511	28140185	Cushion
A512	28140206	Cushion
A517	834430068	3TTS+6B(BC), Tapping screw
A631	27170108C	Bottom board
A632	27175009A	Bottom leg
A633	831430088	3TTW+8B(BC), Tapping screw
A634	834430108	3TTS+10B(BC), Tapping screw
A801	28320831A	Knob, Volume
	28321012	Knob, Volume Ⓑ

REF. NO.	PARTS NO.	DESCRIPTION
A802	28320832B	Knob, Balance
	28321013	Knob, Balance Ⓑ
A803	28320833	Knob, Speaker
	28321014	Knob, Speaker Ⓑ
A804	28321100	Knob ass'y, Power
	28321101	Knob ass'y, Power Ⓑ
A805	28320828C	Knob, Base
A808	28320836	Knob, Push
	28321018	Knob, Push (B)
⚠ T1	230695	NPT-789D, Power transformer (D)
	230696	NPT-789G, Power transformer (G)
	230697	NPT-789DG, Power transformer(W)
⚠ S1	25035015A	NPS-111LA3, Power switch
⚠ S2	25065123	NSS-1258P, Slide switch (W)
⚠ C1	3500065A	0.01μF, AC 400V, Capacitor IS
C2	3504172	15000μF, 59V, Capacitor Elect.
⚠ F901	252051	6A (ST-6), AC fuse (D)
	252055	6A-T, AC fuse (W)
⚠ F902	252076	3.15A-SE-EAK, AC fuse (G)(W)
⚠ F1, F2	252079	6.3A-SE-EAK, DC fuse (G)
⚠ F701	252070	1A-SE-EAK, AC fuse (G)
P1	25045018	LJ-100-H, Stereo headphone terminal
P2	25060051	NTM-4PRMN20, Speaker terminal

COMPONENT LOCATION

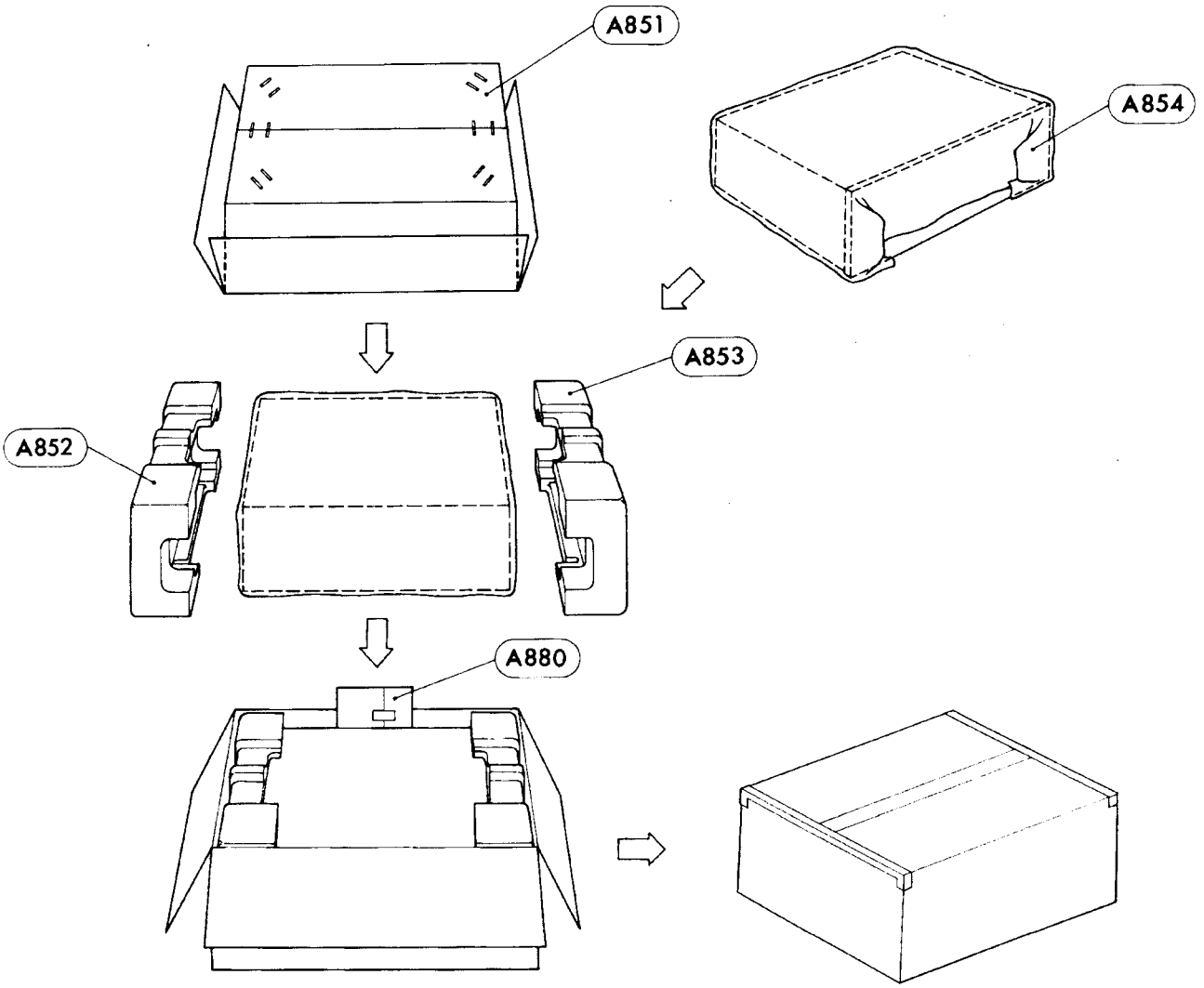


REF. NO.	PARTS NO.	DESCRIPTION
⚠ P4	25050139	NSCT-6P38, AC outlet (D)
	25108010	LG-2C, Terminal (G)(W)
⚠ P5	253112	AS-UC-4#18, Power supply cable (D)
	253092-1	AS-CEE-2, Power supply cable (W)
	253083-1	AS-CEE, Power supply cable (G)
P6	25060044	Ground terminal
P7	25045072	NPJ-6PDBL36, Input terminal
P8	25045069	NPJ-4PDBL34, Phono input terminal
U1	12298547B	NAPJ-847b, Phono input terminal pc board ass'y (D)(W)
	12304547A	NAPJ-847a, Phono input terminal pc board ass'y (G)
U2	12298548C	NAEQ-848C, Equalizer amplifier pc board ass'y (D)(W)
	12304555	NAEQ-1655, Equalizer amplifier pc board ass'y (G)
U3	12941568	NAPJ-1468, Input terminal pc board ass'y
U4	12941569	NASW-1469, Rec. Selector switch pc board ass'y
U5	12941570	NASW-1470, Input selector switch pc board ass'y
U6	12941571	NAPS-1471, Rectifier circuit pc board ass'y (D)
	12304571D	NAPS-1471d, Rectifier circuit pc board ass'y (G)
	12330571C	NAPS-1471c, Rectifier circuit pc board ass'y (W)
U7	12941572	NASW-1472, Switch circuit pc board ass'y
U8	12328574B	NATC-1474b, Tone control pc board ass'y
U9	12298576E	NAMA-1476e, Power amplifier pc board ass'y (D) (W)
	12304576F	NAMA-1476f, Power amplifier pc board ass'y (G)

NOTE
(D): Only 120V model
(G): Only 220V model
(W): Only 120V/220V model
Ⓑ: Black type

The components identified by mark ⚠ are critical for risk of fire and electric shock. Replace only with parts number specified.

PACKING PROCEDURES



REF. NO.	PARTS NO.	DESCRIPTION
A851	29050654	Master carton box
	29050655	Master carton box Ⓑ
A852	29090488	Pad (L)
A853	29090489	Pad (R)
A854	29095012-1	500x800, Protection sheet
	29100038A	720x950, Poly bag
A880		Accessary bag ass'y
	29340673	Instruction manual (D)(U)
	29340674	Instruction manual (G)(V)(W)
	29365006-5	Warranty card (U)
	29365005-3A	Warranty card (V)
	29358002	Service station list (U)
	29358004	Service station list (V)
	29365010	Caution label (U)
	29365011	Label (U)
	29100006A	350x250, Poly bag
	25055018	CV-K-1, Conversion plug (W)
	29100002A	80x150, Poly bag (W)

NOTE
(U): Only U.S.A. model
(V): Only West Germany model
(D): Only 120V model
(G): Only 220V model
(W): Only 120V/220V model
Ⓑ: Black type

PRINTED CIRCUIT BOARD PARTS LIST

PHONO TERMINAL PC BOARD (NAPJ-847a, NAPJ-847b) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
S101a	25065111	NSS-4257, Remote control switch, switch section
	25045069	NPJ-4PDBL34, Terminal

EQUALIZER AMPLIFIER PC BOARD (NAEQ-848c) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	Transistors	
Q101-Q104	2211783	2SA991 (E)
Q105, Q106	2211445 or 2211446	2SC2291 (F) or 2SC2291 (G)
Q107, Q108	2211895 or 2211896	2SC1815L (GR) or 2SC1815L (BL)
Q109, Q110	2211732 or 2211733	2SC1845 (F) or 2SC1845 (E)
Q111, Q112	2211792 or 2211793	2SA992 (F) or 2SA992 (E)
	Diodes	
D101, D102	223145	1S2076TD
	Capacitors	
C101, C102	391041007	10μF, 16V, LL
C103, C104	372122214	220pF, 50V, ST
C105, C106	372124705	470pF, 50V, ST
C109, C110, C135, C136	379121225	0.0012μF, 50V, DEW
C111, C112, C125, C126	379122234	0.022μF, 50V, DEW
C113, C114	391021027	1000μF, 6.3V, LL
C115, C116	379121834	0.018μF, 50V, DEW
C117, C118, C141, C142	379124734	0.047μF, 50V, DEW
C121, C122	391051017	100μF, 25V, LL
C131, C132	391080227	2.2μF, 50V, LL
	Resistors	
R143-R146	441521004	10Ω, 1/2W, Metal oxide film
	Switches	
S102a	25065110	NSS-6456, Remote control switch, switch section
	Covers	
	27300152	Wind protector

EQUALIZER AMPLIFIER PC BOARD (NAEQ-1655) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	Transistors	
Q101-Q104	2211783	2SA991 (E)
Q105, Q106	2211445 or 2211446	2SC2291 (F) or 2SC2291 (G)
Q107, Q108	2211895 or 2211896	2SC1815L (GR) or 2SC1815L (BL)
Q109, Q110	2211732 or 2211733	2SA992 (F) or 2SA992 (E)
	Diodes	
D101, D102	223145	1S2076TD
	Coils	
L101, L102	231030	NCH-1070
	Capacitors	
C101, C102	391041007	10μF, 16V, LL
C103, C104	372122214	220μF, 50V, ST
C105, C106	372123314	330pF, 50V, ST
C109, C110, C135, C136	39121225	0.0012μF, 50V, DEW
C111, C112, C125, C126	379122234	0.022μF, 50V, DEW
C113, C114	391021027	1000μF, 6.3V, LL
C115, C116	379121834	0.018μF, 50V, DEW
C117, C118, C141, C142	379124734	0.047μF, 50V, DEW
C121, C122	391051017	100μF, 25V, LL
C131, C132	391080227	2.2μF, 50V, LL
C143, C144	372125614	560pF, 50V, ST
	Resistors	
R143-R146	441521004	10Ω, 1/2W, Metal oxide film
	Switches	
S102a	25065110	NSS-6456, Remote control switch, switch section
	Covers	
	27300152	Wind protector

INPUT TERMINAL PC BOARD (NAPS-1468) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	25045072	NPJ-6PDBL36, Terminal

REC. SELECTOR SWITCH PC BOARD (NASW-1469) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
PL301, PL302	210155	14V, 60mA, Lamp
C271	352741019	100μF, 16V, Capacitor Elect.
R721	441521214	120Ω, 1/2W, Metal oxide film resistor
R722	441523904	39Ω, 1/2W, Metal oxide film resistor
S301	25030160	NPSM-166-30ZV, Remote control switch, control section

INPUT SELECTOR SWITCH PC BOARD (NASW-1470) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
PL303	210150	14V, 80mA, Lamp
PL304, PL305	210146	14V, 60mA, Lamp
PL306, PL307	210147	14V, 60mA, Lamp
R725	441522204	22Ω, 1/2W, Metal oxide film resistor
S302	25035340	NPS-542-L304, Input selector switch

RECTIFIER CIRCUIT PC BOARD (NAPS-1471) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
D911, D912, D915, D916, D919, D920	223841	GP-30G, Diodes
C911	384171037	0.01μF, 630V, Capacitor DT
	250113	S-N5051, Fuse holder

RECTIFIER CIRCUIT PC BOARD (NAPS-1471c) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
D911, D912, D915, D916, D919, D920,	223841	GP-30G, Diodes
C911	384171037	0.01μF, 630V, Capacitor DT
	250113	S-N5051, Fuse holder
	25050065	YSH403T, Fuse holder

RECTIFIER CIRCUIT PC BOARD (NAPS-1471d) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
D911, D912, D915, D916, D919, D920	223841	GP-30G, Diodes
C911	384171037	0.01μF, 630V, Capacitor DT
	25050065	YSH403T, Fuse holder

SWITCH PC BOARD (NASW-1472) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
PL701	210148	14V, 60mA, Lamp
PL702	210151	14V, 80mA, Lamp
C311, C312	352781599	0.15μF, 50V, Capacitors Elect.
R724	441527504	75Ω, 1/2W, Metal oxide film resistor
S303	25035266	NPS-122-L230, Muting switch
S304	25035265	NPS-222-L229, Subsonic/ Loudness switch

TONE CONTROL PC BOARD (NATC-1474b) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
C315, C316	379121235	0.012μF, 50V, Capacitors DEW
C317, C318	379125625	0.0056μF, 50V, Capacitors DEW
C319, C320	379121025	0.001μF, 50V, Capacitors DEW
C321, C322	379123335	0.033μF, 50V, Capacitors DEW
R317	5148044	N16RGMC250KMN30, Variable resistor
R321	5148046A	N16RGMC11C219K30, Variable resistor
R323	5148045A	N16RQMC11C110K180K30, Variable resistor

POWER AMPLIFIER PC BOARD (NAMA-1476e) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	Transistors	
Q501, Q601	2211915 or 2211916	2SK240 (GR) or 2SK240 (BL)
Q502, Q503, Q507, Q514, Q602, Q603, Q607, Q614	2211255	2SC1815 (GR)
Q504, Q604	2211515 or 2211516	2SA995 (F) or 2SA995 (G)
Q505, Q605, Q506, Q606	2211455	2SA1015 (GR)
Q508, Q608	2211732 or 2211733	2SC1845 (F) or 2SC1845 (E)
Q509, Q609	2211792 or 2211793	2SA992 (F) or 2SA992 (E)
Q512, Q612	2211743 or 2211742	2SA915 (M) or 2SA915 (L)
Q513, Q613	2211763 or 2211762	2SC1940 (M) or 2SC1940 (L)
Q515, Q615	2211923 or 2211924	2SC2824 (O) or 2SC2824 (Y)
Q516, Q616	2211933 or 2211934	2SA1184 (O) or 2SA1184 (Y)
Q519, Q619	2211395 or 2211396	2SA970 (GR) or 2SA970 (BL)
Q703	2211504	2SA950 (Y)
Q901	2201073 or 2201074	2SD880 (O) or 2SD880 (Y)
Q902	2201243 or 2201244	2SB834 (O) or 2SB834 (Y)
Q903, Q904	2211945 or 2211315	2SK246 (GR) or 2SK117 (GR)
	ICs	
Q561, Q661	222502	NJM-4558DX
Q702	222584	TA7317P
	Diodes	
D502-D504, D602-D604, D561, D562, D661, D662, D703, D705	223145	1S2076TD
D706	223864	WL-01
D704	2240972 or 2240973	GZA-6.2Y or GZA-6.2Z
D901, D902	2241233 or 2241232	GZA-22Z or GZA-22Y
	Coils	
L501, L601	231015	S-0.8C
	Capacitors	
C501, C601	372126805	68pF, 50V, ST
C502, C520, C602, C620	379121035	0.01μF, 50V, DEW
C504, C604	379122735	0.027μF, 50V, DEW
C509, C510, C524, C609, C610, C624	379124735	0.047μF, 50V, DEW
C515, C516, C615, C616, C703	352722219	220μF, 6.3V, Elect.
C519, C619	379121025	0.001μF, 50V, DEW
C523, C623	379121047	0.1μF, 50V, DEW
C561, C562, C661, C662	352752209	22μF, 25V, Elect.
C704	352732209	22μF, 10V, Elect.
C705	352784799	0.47μF, 50V, Elect.
C707	352743319	330μF, 16V, Elect.
C708	352741529	1500μF, 16V, Elect.
C709	379122237	0.022μF, 50V, DEW
C901, C902	352752219	220μF, 25V, Elect.
C905, C906	352754709	47μF, 25V, Elect.
C907, C908	352782219	220μF, 50V, Elect.
	Resistors	
R511, R611	442522714	270Ω, 1/2W, Metal oxide film
R526, R529, R626, R629	442524314	430Ω, 1/2W, Metal oxide film
R527, R528, R627, R628	442526204F	62Ω, 1/2W, Metal oxide film
R536, R537, R636, R637	442521814	180Ω, 1/2W, Metal oxide film
R538, R638	5225015	N10HR10KBD, Semi-fixed
R540, R640	442521014	100Ω, 1/2W, Metal oxide film
R541, R542, R641, R642	442520274	2.7Ω, 1/2W, Metal oxide film
R543, R544 R643, R644	4000063	0.47Ω, 2W, Metal plate
R545, R645	441720104	1Ω, 2W, Metal oxide film
R546, R547, R646, R647	4000080	0.47Ω, 5W, Metal plate
R549, R649	441620564	5.6Ω, 1W, Metal oxide film
R550, R650	441721004	10Ω, 2W, Metal oxide film
R715	442522704	27Ω, 1/2W, Metal oxide film
R901, R902	441525604	56Ω, 1/2W, Metal oxide film
	Relay	
	25065036	NRL-4P3A-DC12-01
	Radiator	
	27160029	RAD-07

POWER AMPLIFIER PC BOARD (NAMA-1476e) PARTS LIST

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	Transistors	
Q501, Q601	2211915 or	3SK240 (GR) or
	2211916	2SK240 (BL)
Q502, Q503, Q507, Q514, Q602, Q603, Q607, Q614	2211255	2SC1815 (GR)
Q504, Q604	2211515 or	2SA995 (F) or
	2211516	2SA995 (G)
Q505, Q605, Q506, Q606	2211455	2SA1015 (GR)
Q508, Q608	2211732 or	2SC1845 (F) or
	2211733	2SC1845 (E)
Q509, Q609	2211792 or	2SA992 (F) or
	2211793	2SA992 (E)
Q512, Q612	2211743 or	2SA915 (M) or
	2211742	2SA915 (L)
Q513, Q613	2211763 or	2SA1940 (M) or
	2211762	2SC1940 (L)
Q515, Q615	2211923 or	2SC2824 (O) or
	2211924	2SC2824 (Y)
Q516, Q616	2211933 or	2SA1184 (O) or
	2211934	2SA1184 (Y)
Q519, Q619	2211395 or	2SA970 (GR) or
	2211396	2SA970 (BL)
Q703	2211504	2SA950 (Y)
Q901	2201073 or	2SD880 (O) or
	2201074	2SD880 (Y)
Q902	2201243 or	2SB834 (O) or
	2201244	2SB834 (Y)
Q903, Q904	2211945 or	2SK246 (GR) or
	2211315	2SK117 (GR)
	ICs	
Q561, Q661	222502	NJM-4558DX
Q702	222584	TA7317P
	Diodes	
D502-D504, D602-D604, D561, D562, D661, D662, D703, D705	223145	1S2076TD
D706	223864	WL-01
D704	2240972 or	GZA-6.2Y or
	2240973	GZA-6.2Z
D901, D902	2241233 or	GZA-22Z or
	2241232	GZA-22Y
	Coils	
L501, L601	231015	S-0.8C
	Capacitors	
C501, C601	372126805	68pF, 50V, ST
C502, C520, C602, C620	379121035	0.01μF, 50V, DEW
C504, C604	379122735	0.027μF, 50V, DEW
C509, C510, C524, C609, C610, C624	379124735	0.047μF, 50V, DEW
C515, C516, C615, C616 C703	352722219	220μF, 6.3V, Elect.
C519, C619	379121025	0.001μF, 50V, DEW
C523, C623	379121047	0.1μF, 50V, DEW
C561, C562, C661, C662	352752209	22μF, 25V, Elect.
C704	352732209	22μF, 10V, Elect.
C705	352784799	0.47μF, 50V, Elect.
C707	352743319	330μF, 16V, Elect.
C708	352741529	1500μF, 16V, Elect.
C709	379122237	0.022μF, 50V, DEW
C901, C902	352752219	220μF, 25V, Elect.
C905, C906	352754709	47μF, 25V, Elect.
C907, C908	352782219	220μF, 50V, Elect.
	Resistors	
R511, R611	442522714	270Ω, 1/2W, Metal oxide film
R526, R529, R626, R629	442524314	430Ω, 1/2W, Metal oxide film
R527, R528, R627, R628	442526204F	62Ω, 1/2W, Metal oxide film
R536, R537, R636, R637	442521814	180Ω, 1/2W, Metal oxide film
R538, R638	5225015	N10HR10KBD, Semi-fixed
R540, R640	442521014	100Ω, 1/2W, Metal oxide film
R541, R542, R641, R642	442520274	2.7Ω, 1/2W, Metal oxide film
R543, R544, R643, R644	4000063	0.47Ω, 2W, Metal plate
R545, R645	441720104	1Ω, 2W, Metal oxide film
R546, R547, R646, R647	4000080	0.47Ω, 5W, Metal plate
R549, R649	441620564	5.6Ω, 1W, Metal oxide film
R550, R650	441721004	10Ω, 2W, Metal oxide film
R715	442522704	27Ω, 1/2W, Metal oxide film
R901, R902	441525604	56Ω, 1/2W, Metal oxide film
	Relay	
	25065036	NRL-4P3A-DC12-01
	Radiator	
	27160029	RAD-07
	Fuse holder	
	25050065	YSH403T

MODEL A8017

SUBSTITUTIVE PARTS LIST

NOTE:USE THE REGULAR PARTS WHEN REPLACEMENT

PE	CIRCUIT NO.	DESCRIPTION	REGULAR PARTS	SUBSTITUTIVE PARTS	APPLICATION
	Q505,506,605	TRANSISTORS	2SA1015(GR)	2SA1015(Y)	4646-4745
	Q501,Q601	F.E.T.	2SK240(GR)	2SK170(V)	2061-2460
	D704	DIODE	GZA6.2Y	RD6.2EB-3	2061-2460
	Q561,Q661	IC	NJM4558DX	NJM4558DD	4746-5240
	Q501,Q601	F.E.T.	2SK240(GR)	2SK170(GR)	5246-5745

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MODEL M-5060R

SUBSTITUTIVE PARTS LIST

NOTE:USE THE REGULAR PARTS WHEN REPLACEMENT

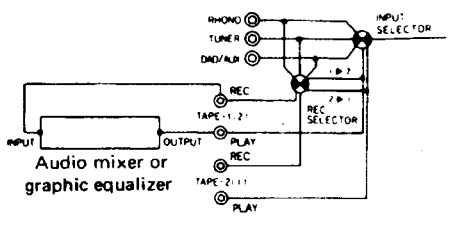
YPE	CIRCUIT NO.	DESCRIPTION	REGULAR PARTS	SUBSTITUTIVE PARTS	APPLICATION
G	D407-D410	DIODES	GZA18X	EQA02-17A	1801-1900
G	D507-D510	DIODES	GZA18X	EQA02-17A	1801-1900
G	Q421,Q521	IC	NJM4558DX	NJM4558DD	1801-1900

MODEL A8017

SUBSTITUTIVE PARTS LIST

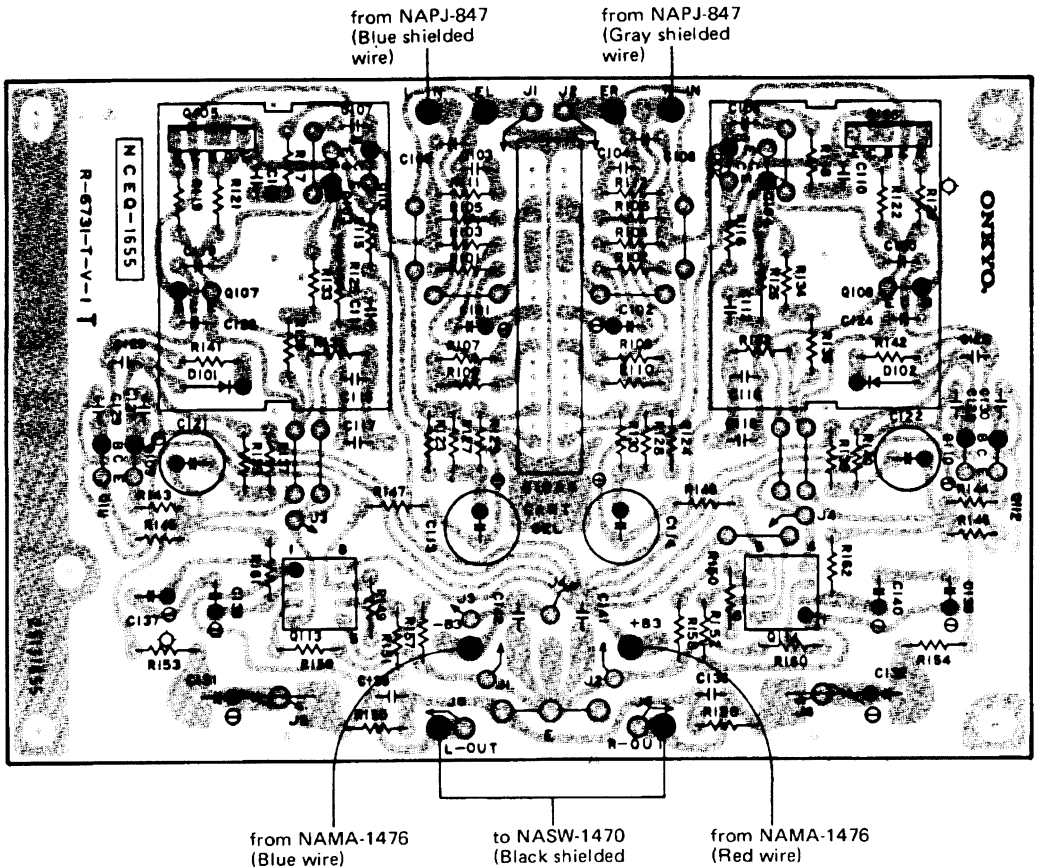
NOTE:USE THE REGULAR PARTS WHEN REPLACEMENT

TYPE	CIRCUIT NO.	DESCRIPTION	REGULAR PARTS	SUBSTITUTIVE PARTS	APPLICATION
UG	Q505,506,605	TRANSISTORS	2SA1015(GR)	2SA1015(Y)	4646-4745
UD	Q501,Q601	F.E.T.	2SK240(GR)	2SK170(V)	2061-2460
UD	D704	DIODE	GZA6.2Y	RD6.2EB-3	2061-2460
UG	Q561,Q661	IC	NJM4558DX	NJM4558DD	4746-5240
UG	Q501,Q601	F.E.T.	2SK240(GR)	2SK170(GR)	5246-5745
UG	Q512,Q612	TRANSISTOR	2SA915(L)	2SA915(K)	6621-7120
UG	Q513,Q613	TRANSISTOR	2SC1940(L)	2SC1940(K)	6621-7120
UG	Q561,661	IC	NJM4558DX	NJM4558DD	6246-6545

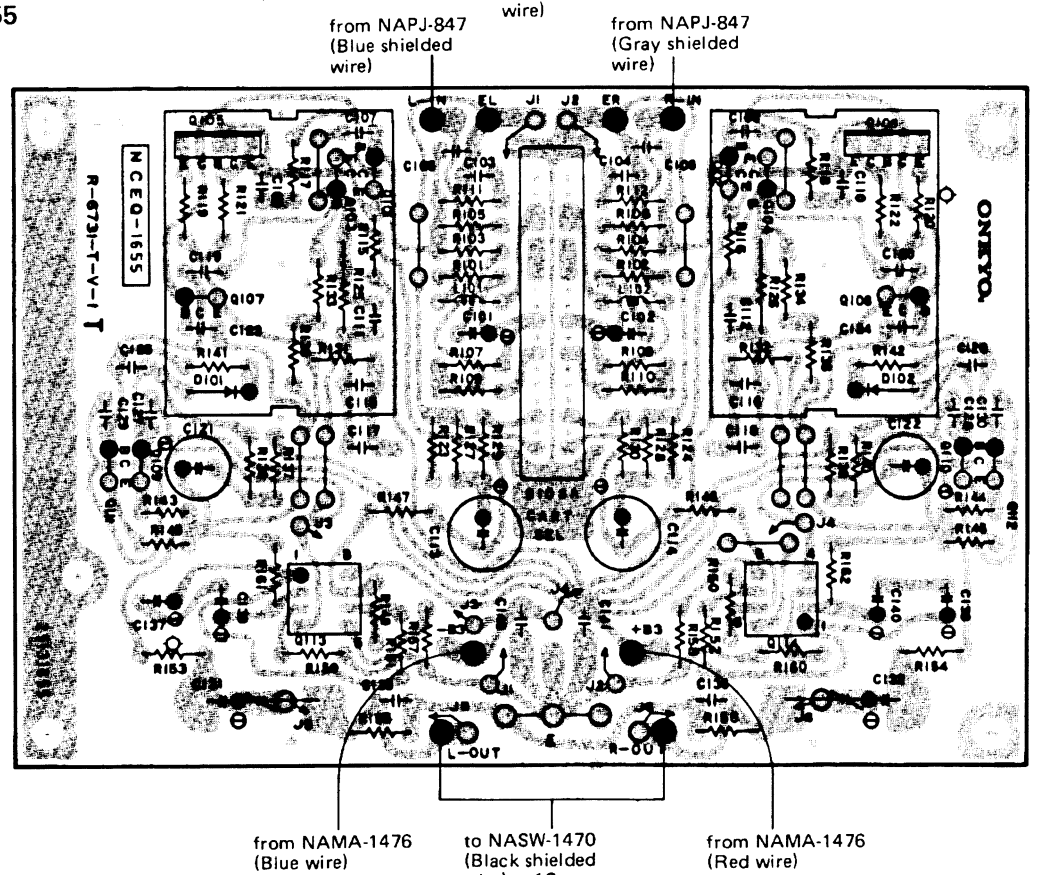


PRINTED CIRCUIT BOARD VIEW FROM COMPONENT SIDE

NAEQ-848

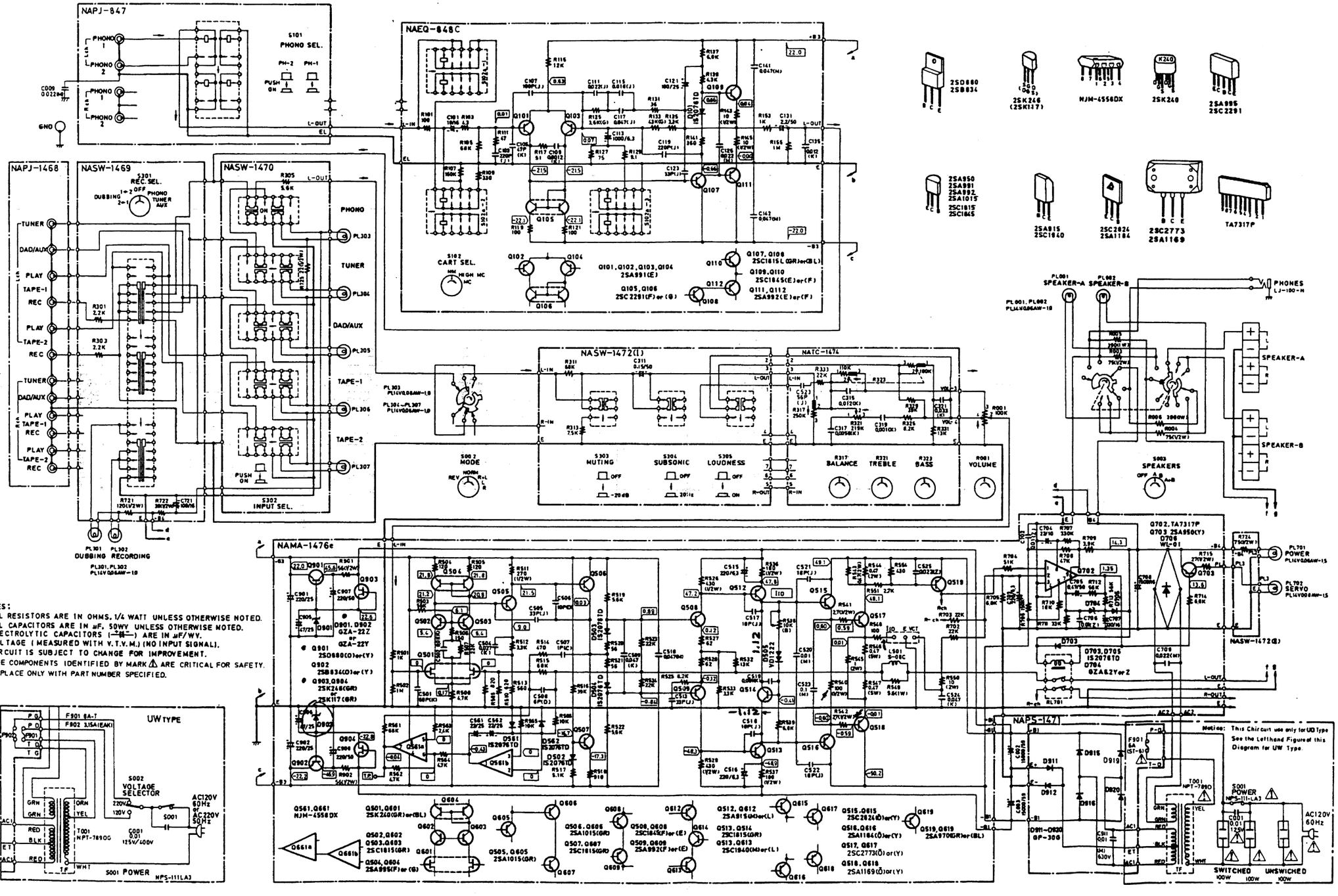


NAEQ-1655



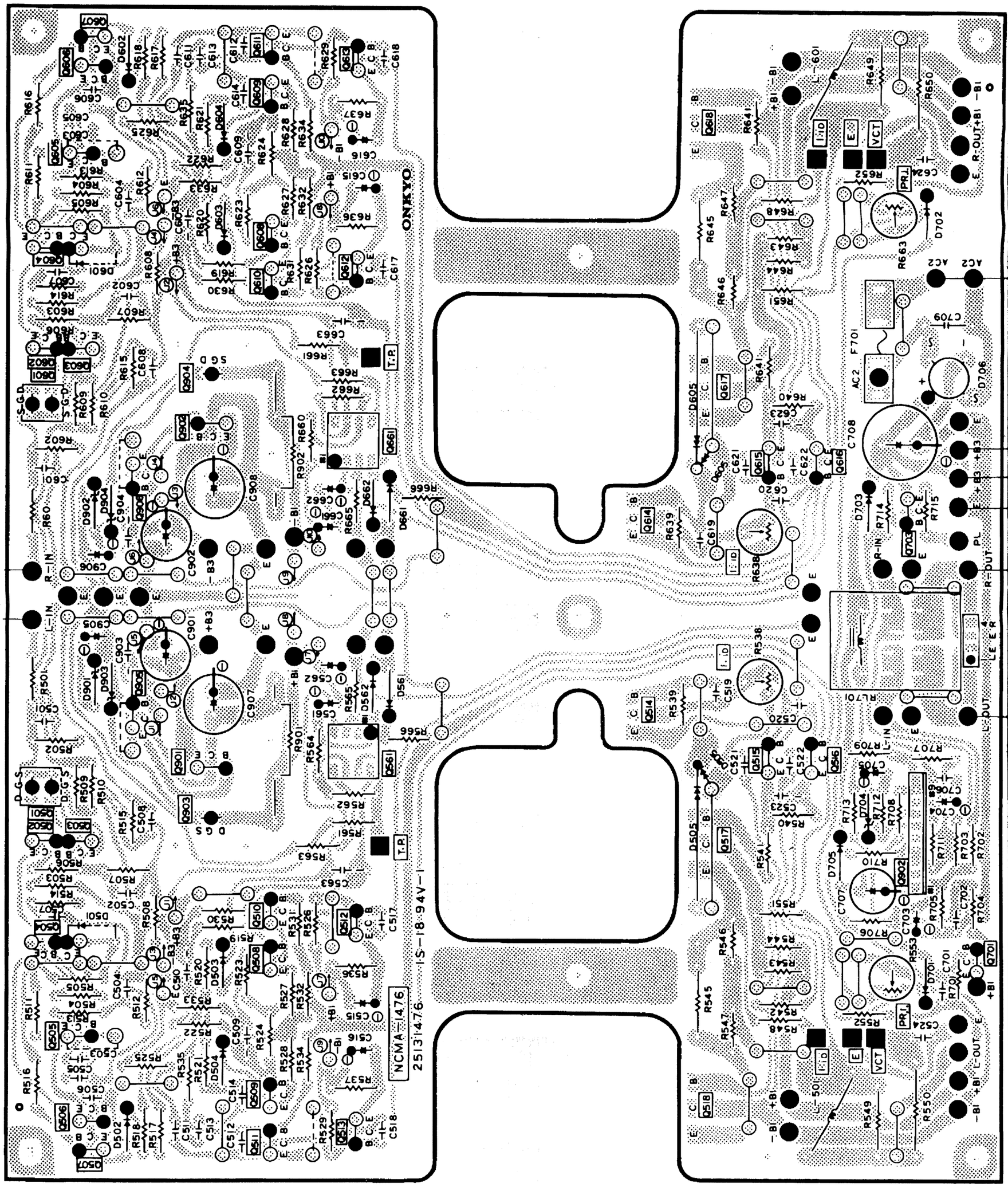
SCHEMATIC DIAGRAM

120V Model, 120V/220V Model



NOTES:

- ALL RESISTORS ARE IN OHMS, 1/4 WATT UNLESS OTHERWISE NOTED.
- ALL CAPACITORS ARE IN μF, 50WV UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS (—‖—) ARE IN μF/WV.
- VOLTAGE (MEASURED WITH V.T.V.M.) (NO INPUT SIGNAL).
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.
- THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.


ONKYO
NCMA-1476
2513-1476-S-18-94V-1
T.R
PRJ
VCT
1:10
1:ID
F701
L-601
L-501
L-701
L-IN
R-IN
L-OUT
R-OUT
AC2
S.G.D
D.G.S

A-8017